

**REMARKS**

Claims 49-83 are pending, claims 53-81 being withdrawn from consideration, and claims 49 and 83 being currently amended. The Office is respectfully requested to reconsider the rejections made in the Official Action mailed November 13, 2009, in view of the above amendments and the remarks below.

***Claim Amendments***

Claim 49 has been amended to recite that the immunologic vaccine comprises as an active component dead cell material derived from PDT-treatment of autologous autoreactive peripheral blood cells. Support for this amendment may be found throughout the specification and, more specifically, at page 16, lines 5-11.

Claim 83 has been amended to remove repetition of the phrase "wherein the vaccine." The objection to claim 83 is respectfully requested to be withdrawn.

Applicant respectfully requests After Final entry of the amendments. The amendments place the claims in condition for allowance. In the alternative, the amendments reduce the number of issues for an appeal, if necessary.

***Art Rejections***

Claims 49-52 stand rejected under 35 USC § 102(b) as being anticipated by Brasseur. Applicants traverse this rejection. Claims 49-52 also stand rejected under 35 USC § 102(b) as being anticipated by Roy. Applicants traverse this rejection. Claims 49-52 also stand rejected under 35 USC § 102(b) as being anticipated by WO 01/24824. Applicants traverse this rejection. Claims 49, 82 and 83 stand rejected under 35 USC § 103(a) as being unpatentable over Gollnick in view of Sharman. Applicants traverse this rejection.

Claim 49 recites, *inter alia*, an immunologic vaccine comprising as an active component dead cell material derived from PDT-treatment of autologous autoreactive peripheral blood cells.

Brasseur, Roy, WO'284, and Gollnick do not teach or suggest an active component of dead cell material derived from PDT-treatment of autologous autoreactive peripheral blood cells. Instead, Brasseur, Roy and Gollnick all relate to stem cells with PDT-treated tumor cells.

For example, Brasseur relates to the preparation given to cancer patients who have no functioning immune system of their own. The preparation is processed such that any cancerous tumor cells are PDT-treated so that stem cells that are free of cancerous tumor cells. A cancer patients is then given stem cells that are free of cancerous tumor cells in order to build up a new tumor free immune system. Stem cells are essentially omnipotent and can still differentiate.

Specifically, Brasseur discloses that peripheral blood stem cells are removed from a patient. Malignant tumor cells may be present in this removed graft. TH9402 is selectively incorporated to the tumor cells and light is used to destroy the tumor cells. Brasseur discloses that "purging procedures are needed to eliminate tumor cells from the graft, without affecting the normal hematopoietic progenitor cells." *Brasseur*, page 780, column 2. Thus, there is no indication that the dead tumor cells are an active part of the graft. Instead, the effect of the treatment is based on receiving the patient's own living non-tumor stem cells. Dead cells cannot be an active part of the Brasseur treatment because dead cells cannot grow out into different types of cells to build up a new and clean immune system.

Brasseur, Roy and Gollnick are all related to the treatment of tumor cells from a patient's own (stem cell) graft material. The treatment is narrowly focused on restoring a

functioning immune system to a patient with cancer (e.g., leukemia). One skilled in the art would have no reason to modify the treatment of Brasseur, Roy or Gollnick in a manner to arrive at the claimed invention.

WO '284 does not teach or suggest an active component of dead cell material derived from PDT-treatment of autologous autoreactive peripheral blood cells. Instead, WO'284 relates to PDT-treated alloreactive T-cells.

WO '284 relates to treatment of a patient receiving a transplant, with a third party being used as a donor. The treatment of WO '284 is used to reduce the risks associated with third-party-related transplant, for example, acute graft versus host disease. One skilled in the art would have no reason to modify the treatment of WO '284 in a manner to arrive at the claimed invention.

The rejections of the claims based on Brasseur, Roy, WO'284, and Gollnick are respectfully requested to be withdrawn.

### ***Double Patenting Rejection***

Claims 49-52 stand provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 25 of co-pending application No. 10/969,011.

Applicants acknowledge that this is a provisional rejection. If Applicants deemed it more expeditious to respond to this double patenting rejection by filing a Terminal Disclaimer, the time for filing a Terminal Disclaimer has not matured because, at present, the co-pending application is still being prosecuted and it is not clear whether the scope of the claims of the co-pending application will remain unchanged.

***Conclusion***

For at least the reasons stated above, the Examiner is respectfully requested to reconsider and withdraw the outstanding objection and rejections, and to allow the present application.


In the event that there are any questions concerning this reply, or the application in general, the Examiner is respectfully urged to telephone the undersigned attorney so that prosecution of the application may be expedited.

The Director is hereby authorized to charge any appropriate fees under 37 C.F.R. §§ 1.16, 1.17 and 1.20(d) and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 02-4800.

Respectfully submitted,

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Date: 13 January 2010

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